

1. 5,849,899, Dec. 15, 1998, Human tumor suppressor; Jennifer L. Hillman, et al., 536/23.5; 435/69.1, 252.3, 320.1; 536/23.1, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,849,899 [IMAGE AVAILABLE] L5: 1 of 108

ABSTRACT:

The present invention provides a human tumor suppressor (TUPRO-2) and polynucleotides which identify and encode TUPRO-2. The invention also provides **expression** vectors and host cells, agonists, antibodies, or antagonists. The invention provides methods for treating diseases associated with **expression** of TUPRO-2.

2. 5,849,556, Dec. 15, 1998, Human growth-related CDC10 homolog; Jennifer L. Hillman, et al., 435/195, 6, 252.3, 252.33, 254.11, 254.3, 320.1, 325, 410; 530/350; 536/23.1, 23.2 [IMAGE AVAILABLE]

US PAT NO: 5,849,556 [IMAGE AVAILABLE] L5: 2 of 108

ABSTRACT:

The invention provides a human growth-related CDC10 homolog (GR-SEP) and polynucleotides which identify and encode GR-SEP. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating and preventing disorders associated with **expression** of GR-SEP.

3. 5,849,528, Dec. 15, 1998, Polynucleotides encoding a human S100 protein; Jennifer L. Hillman, et al., 435/69.1, 6, 252.3, 320.1, 325; 530/350; 536/23.1, 23.5, 24.3, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,849,528 [IMAGE AVAILABLE] L5: 3 of 108

ABSTRACT:

The invention provides two human S100 proteins designated individually as S100P1 and S100P2 and collectively as S100P, and polynucleotides which identify and encode S100P. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of S100P.

4. 5,849,527, Dec. 15, 1998, Polynucleotides encoding ATP synthase coupling factor 6; Jennifer L. Hillman, et al., 435/69.1, 6, 252.3, 320.1, 325; 530/350; 536/23.1, 23.5, 24.3, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,849,527 [IMAGE AVAILABLE] L5: 4 of 108

APS
09/067, 638
12-20-98
CHK'D, NM

ABSTRACT:

The present invention provides a human mitochondrial F6 subunit (HMF6) and polynucleotides which encode HMF6. The invention also provides **expression** vectors, host cells, agonists, antisense molecules, antibodies, or antagonists. The invention also provides methods for treating disorders associated with **expression** of HMF6.

5. 5,849,498, Dec. 15, 1998, Human 3-hydroxyisobutyryl-coenzyme a hydrolase; Olga Bandman, et al., 435/6, 196, 252.3, 320.1; 536/23.2 [IMAGE AVAILABLE]

US PAT NO: 5,849,498 [IMAGE AVAILABLE] L5: 5 of 108

ABSTRACT:

The present invention provides a human 3-hydroxyisobutyryl-coenzyme A hydrolase (HIBCOH) and polynucleotides which identify and encode HIBCOH. The invention also provides **expression** vectors, host cells, and antibodies. The invention also provides methods for the prevention and treatment of diseases associated with **expression** of HIBCOH, as well as diagnostic assays.

6. 5,847,094, Dec. 8, 1998, UBCH7-like ubiquitin-conjugating enzyme; Olga Bandman, et al., 536/23.1; 435/6, 252.3; 536/24.3 [IMAGE AVAILABLE]

US PAT NO: 5,847,094 [IMAGE AVAILABLE] L5: 6 of 108

ABSTRACT:

The present invention provides a human ubiquitin-conjugating enzyme (UBCPB) and polynucleotides which identify and encode UBCPB. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding UBCPB and a method for producing UBCPB. The invention also provides for agonists, antibodies, or antagonists specifically binding UBCPB, and their use, in the prevention and treatment of diseases associated with **expression** of UBCPB. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding UBCPB for the treatment of diseases associated with the **expression** of UBCPB. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding UBCPB.

7. 5,847,093, Dec. 8, 1998, Human apoptosis regulator; Olga Bandman, et al., 536/23.1; 435/69.1, 69.3, 71.1, 257.3, 273, 320.1; 530/350; 536/23.5 [IMAGE AVAILABLE]

ABSTRACT:

The present invention provides a human apoptosis regulator protein (APRG) and polynucleotides which identify and encode APRG. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding APRG and a method for producing APRG. The invention also provides for agonists, antibodies, or antagonists specifically binding APRG, and their use, in the prevention and treatment of diseases associated with **expression** of APRG. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding APRG for the treatment of diseases associated with the **expression** of APRG. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding APRG.

8. 5,846,777, Dec. 8, 1998, Two cDNAs encoding WD-40 proteins; Olga Bandman, et al., 435/69.1, 252.33, 320.1, 325; 536/23.1, 23.5 [IMAGE AVAILABLE]

ABSTRACT:

The invention provides two new WD-40 proteins (WDPro) and polynucleotides which identify and encode WDPro. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of WDPro.

9. 5,846,775, Dec. 8, 1998, GTP cyclohydrolase I regulatory protein; Jennifer L. Hillman, et al., 435/69.1, 320.1, 325; 530/350; 536/23.5 [IMAGE AVAILABLE]

ABSTRACT:

The present invention provides a human GTPCH regulatory protein (HGCR) and polynucleotide which encode HGCR. The invention also provides **expression** vectors, host cells, agonists, antisense molecules, antibodies, or antagonists. The invention also provides methods for treating disorders associated with **expression** of HGCR.

10. 5,843,727, Dec. 1, 1998, Polynucleotides encoding a human tumor-associated membrane protein; Jennifer L. Hillman, et al., 435/69.8, 252.3, 320.1, 325, 348; 536/23.1, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,843,727 [IMAGE AVAILABLE]

L5: 10 of 108

ABSTRACT:

The present invention provides a human tumor-associated membrane protein (TAMPH) and polynucleotides which identify and encode TAMPH. The invention also provides **expression** vectors, host cells, antibodies and antagonists. The invention also provides methods for the prevention and treatment of diseases associated with **expression** of TAMPH, as well as diagnostic assays.

11. 5,843,717, Dec. 1, 1998, Rab protein; Jennifer L. Hillman, et al., 435/69.1, 6, 252.3, 320.1; 536/23.1, 23.5, 24.32 [IMAGE AVAILABLE]

US PAT NO: 5,843,717 [IMAGE AVAILABLE]

L5: 11 of 108

ABSTRACT:

The present invention provides a human novel RAB protein (SRAB) and polynucleotides which identify and encode SRAB. The invention also provides **expression** vectors, host cells, agonists, antibodies, and antagonists. The invention also provides methods for treating disorders associated with **expression** of SRAB.

12. 5,843,716, Dec. 1, 1998, Polynucleotide encoding a proline-rich membrane protein; Janice Au-Young, et al., 435/69.1, 320.1, 325, 348; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,843,716 [IMAGE AVAILABLE]

L5: 12 of 108

ABSTRACT:

The present invention provides a human proline-rich membrane protein (PRMP) and polynucleotides which identify and encode PRMP. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding PRMP and a method for producing PRMP. The invention also provides for agonists, antibodies, or antagonists specifically binding PRMP, and their use, in the prevention and treatment of diseases associated with **expression** of PRMP. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding PRMP for the treatment of diseases associated with the **expression** of PRMP. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding PRMP.

13. 5,843,715, Dec. 1, 1998, Human proteasome subunit proteins; Olga Bandman, et al., 435/69.1, 252.3, 320.1; 536/23.5, 24.31 [IMAGE

AVAILABLE]

US PAT NO: 5,843,715 [IMAGE AVAILABLE]

L5: 13 of 108

ABSTRACT:

The present invention provides polynucleotides which identify and encode novel human proteasome subunit proteins. The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding PSUB. The invention also provides for the use of substantially purified PSUB, antagonists, and in pharmaceutical compositions for the treatment of diseases associated with the **expression** of PSUB. Additionally, the invention provides for the use of antisense molecules to PSUB in pharmaceutical compositions for treatment of diseases associated with the **expression** of PSUB. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, fragments or the complement thereof, which hybridize with the genomic sequence or the transcript of polynucleotides encoding PSUB or anti-PSUB antibodies which specifically bind to PSUB.

14. 5,843,714, Dec. 1, 1998, **DNA** encoding a novel human proteolipid; Janice Au-Young, et al., 435/69.1, 320.1, 325; 530/350; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,843,714 [IMAGE AVAILABLE]

L5: 14 of 108

ABSTRACT:

The present invention provides polynucleotides which identify and encode a novel human proteolipid (PLHu). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding PLHu. The invention also provides for the use of substantially purified PLHu and its agonists in the commercial production of recombinant proteins for the treatment of diseases associated with the **expression** of PLHu. Additionally, the invention provides for the use of antisense molecules to PLHu in the treatment of diseases associated with the **expression** of PLHu. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotides which hybridize with naturally occurring sequences encoding PLHu and antibodies which specifically bind to the protein.

15. 5,843,668, Dec. 1, 1998, Human SQM1 protein homolog; Jennifer L. Hillman, et al., 435/6, 91.2; 436/94; 536/22.1, 23.1, 24.3, 24.31, 24.32, 24.33, 24.5 [IMAGE AVAILABLE]

ABSTRACT:

The present invention provides a polynucleotide which identifies and encodes a novel human SQM2. The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding human SQM2. The invention also provides for the use of purified SQM2 and its agonists in the production of recombinant proteins and in pharmaceutical compositions for the treatment of diseases associated with the **expression** of SQM2. Additionally, the invention provides for the use of SQM2 antagonists and inhibitors, including antisense molecules to SQM2 polynucleotides (i.e., gene sequences) in pharmaceutical compositions for the treatment of diseases associated with the **expression** of SQM2. The invention also describes diagnostic assays which utilize the polynucleotide to hybridize with the transcripts and/or genomic **DNA** encoding SQM2 and anti-human SQM2 antibodies which specifically bind to SQM2.

16. 5,843,665, Dec. 1, 1998, Human pyrophosphatase; Phillip R. Hawkins, et al., 435/6, 91.2, 195, 252.3, 320.1; 536/23.2, 24.31 [IMAGE AVAILABLE]

ABSTRACT:

The present invention provides a human pyrophosphatase (HPYP) and polynucleotides which identify and encode HPYP. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding HPYP and a method for producing HPYP. The invention also provides for use of HPYP and agonists, antibodies, or antagonists specifically binding HPYP, in the prevention and treatment of cancer and inflammatory diseases. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HPYP for the treatment of diseases associated with the **expression** of HPYP. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HPYP.

17. 5,843,657, Dec. 1, 1998, Isolation of cellular material under microscopic visualization; Lance A. Liotta, et al., 435/6; 156/57; 436/63, 174, 175, 177 [IMAGE AVAILABLE]

ABSTRACT:

A method of microdissection which involves: forming an image field of

cells of the tissue sample utilizing a microscope, identifying at least one zone of cells of interest from the image field of cells which at least one zone of cells of interest includes different types of cells than adjacent zones of cells, and extracting the at least one zone of cells of interest from the tissue sample. The extraction is achieved by contacting the tissue sample with a transfer surface that can be selectively activated so that regions thereof adhere to the zone of cells of interest to be extracted. The transfer surface includes an activatable adhesive layer which provides chemical or electrostatic adherence to the selected regions of the tissue sample. After the transfer surface is activated the transfer surface and tissue sample are separated. During separation the zone of cells of interest remains adhered to the transfer surface and is thus separated from the tissue sample.

18. 5,840,871, Nov. 24, 1998, Prostate-associated kallikrein; Jennifer L. Hillman, et al., 536/23.5; 435/69.1, 320.1 [IMAGE AVAILABLE]

US PAT NO: 5,840,871 [IMAGE AVAILABLE]

L5: 18 of 108

ABSTRACT:

The present invention provides a human prostate-associated kallikrein (HPAK) and polynucleotides which identify and encode HPAK. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding HPAK and a method for producing HPAK. The invention also provides for antibodies or antagonists specifically binding HPAK, and their use, in the prevention and treatment of diseases associated with **expression** of HPAK. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HPAK for the treatment of diseases associated with the **expression** of HPAK. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HPAK.

19. 5,840,870, Nov. 24, 1998, Polynucleotides PANC1A and PANC1B associated with pancreatic cancer; Richard D. Goold, et al., 536/23.5; 435/6, 320.1; 536/24.33 [IMAGE AVAILABLE]

US PAT NO: 5,840,870 [IMAGE AVAILABLE]

L5: 19 of 108

ABSTRACT:

The present invention provides polynucleotide sequences designated PANC1A and PANC1B which are associated with a genomic sequence related to pancreatic cancer as well as other cancers. The present invention also provides for PANC1A and PANC1B antisense molecules. The invention further provides genetically engineered **expression** vectors and host cells for

the production of purified PANC1A and PANC1B polypeptide; antibodies, antagonists and inhibitors of PANC1A and PANC1B polypeptide; and pharmaceutical compositions and methods of treatment based on the polypeptide, its antibodies, antagonists and inhibitors. The invention specifically provides for use of the polypeptide as a diagnostic composition for the detection of pancreatic cancer in individuals at risk for and subject to pancreatic cancer. The invention also relates to therapeutic methods and compositions based upon the nucleotide sequences for PANC1A and PANC1B.

20. 5,840,866, Nov. 24, 1998, Human ubiquitin-conjugating enzyme; Janice Au-Young, et al., 536/23.2; 435/193, 252.3, 252.33, 320.1; 536/23.5
[IMAGE AVAILABLE]

US PAT NO: 5,840,866 [IMAGE AVAILABLE] L5: 20 of 108

ABSTRACT:

The present invention provides a polynucleotide (ubcp) which identifies and encodes a novel ubiquitin-conjugating enzyme (UBCP). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding UBCP. The invention also provides for the use of substantially purified UBCP and its agonists, antagonists, or inhibitors in the commercial production of recombinant proteins and in pharmaceutical compositions for the treatment of diseases associated with the **expression** of UBCP. Additionally, the invention provides for the use of antisense molecules to ubcp in pharmaceutical compositions for treatment of diseases associated with the **expression** of UBCP. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, fragments or the complement thereof, which hybridize with the genomic sequence or the transcript of ubcp or anti-UBCP antibodies which specifically bind to UBCP.

21. 5,840,569, Nov. 24, 1998, Human GTP-binding proteins; Jennifer L. Hillman, et al., 435/252.3, 69.1, 320.1; 536/23.1, 23.5, 24.31, 24.32
[IMAGE AVAILABLE]

US PAT NO: 5,840,569 [IMAGE AVAILABLE] L5: 21 of 108

ABSTRACT:

The present invention provides three novel GTP-binding proteins (designated individually as BND-1, BND-2, and BND-3, and collectively as BND) and polynucleotides which identify and encode BND. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding BND and a method

for producing BND. The invention also provides for use of BND and agonists, antibodies, or antagonists specifically binding BND, in the prevention and treatment of diseases associated with **expression** of BND. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding BND for the treatment of diseases associated with the **expression** of BND. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding BND.

22. 5,840,559, Nov. 24, 1998, Human spermidine/spermine N1-acetyltransferase; Jennifer L. Hillman, 435/193, 252.3, 252.33, 320.1; 536/23.2, 24.3, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,840,559 [IMAGE AVAILABLE] L5: 22 of 108

ABSTRACT:

The present invention provides a human spermidine/spermine N1-acetyltransferase (S-ACTR) and polynucleotides which identify and encode S-ACTR. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding S-ACTR and a method for producing S-ACTR. The invention also provides for use of S-ACTR and agonists, antibodies, or antagonists specifically binding S-ACTR, in the prevention and treatment of cancers. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding S-ACTR for the treatment of diseases associated with the **expression** of S-ACTR. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, or antibodies specifically binding S-ACTR.

23. 5,840,544, Nov. 24, 1998, **DNA** encoding rantes homolog from prostate; Phillip R. Hawkins, et al., 435/69.5, 375; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,840,544 [IMAGE AVAILABLE] L5: 23 of 108

ABSTRACT:

The present invention provides a polynucleotide PTEC (prostate expressed chemokine) isolated from a prostate cDNA library which identifies and encodes a novel human rantes homolog PTEC (prostate expressed chemokine). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding PTEC. The invention also provides for the therapeutic use of purified PTEC in the treatment of immune deficiency diseases, and for the therapeutic use of antisense molecules, antibodies, antagonists or inhibitors in the treatment of conditions or diseases associated with the **expression** of

PTEC. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, or fragments thereof, or antibodies which specifically bind to the polypeptide.

24. 5,840,539, Nov. 24, 1998, Polynucleotides encoding a vesicle transport associated proteins; Jennifer L. Hillman, et al., 435/69.1, 252.3, 252.33, 254.11, 254.2, 320.1, 325, 419; 536/23.1, 23.2 [IMAGE AVAILABLE]

US PAT NO: 5,840,539 [IMAGE AVAILABLE] L5: 24 of 108

ABSTRACT:

The invention provides human vesicle transport associated proteins (VTAP) and polynucleotides which identify and encode VTAP. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of VTAP.

25. 5,840,537, Nov. 24, 1998, cDNA encoding a vesicle transport protein; Olga Bandman, et al., 435/69.1, 252.33, 320.1, 325; 536/23.1, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,840,537 [IMAGE AVAILABLE] L5: 25 of 108

ABSTRACT:

The invention provides a human vesicle transport protein (NVTP-1) and polynucleotides which identify and encode NVTP-1. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of NVTP-1.

26. 5,840,535, Nov. 24, 1998, **DNA** encoding a zinc ring protein; Jennifer L. Hillman, et al., 435/69.1; 536/23.5, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,840,535 [IMAGE AVAILABLE] L5: 26 of 108

ABSTRACT:

The invention provides a human zinc RING protein (ZIRI) and polynucleotides which identify and encode ZIRI. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of ZIRI.

27. 5,840,534, Nov. 24, 1998, Human SMT3-like protein; Jennifer L. Hillman, et al., 435/69.1, 252.3, 320.1; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,840,534 [IMAGE AVAILABLE]

L5: 27 of 108

ABSTRACT:

The present invention provides a human SMT3-like protein (HSMTH) and polynucleotides which identify and encode HSMTH. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. In addition, the invention provides methods for producing HSMTH and for treating or preventing disorders associated with **expression** of HSMTH.

28. 5,837,841, Nov. 17, 1998, Human Reg protein; Olga Bandman, et al., 536/23.5; 435/6, 69.1 [IMAGE AVAILABLE]

US PAT NO: 5,837,841 [IMAGE AVAILABLE]

L5: 28 of 108

ABSTRACT:

The present invention provides a polynucleotide (reg I.gamma.) which identifies and encodes a novel human Reg I.gamma.. The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding human Reg I.gamma.. The invention also provides for the use of purified Reg I.gamma. and its agonists in the production of recombinant proteins and in pharmaceutical compositions for the treatment of diseases associated with the **expression** of Reg I.gamma.. Additionally, the invention provides for the use of Reg I.gamma. antagonists and inhibitors, including antisense molecules to reg I.gamma. in pharmaceutical compositions for the treatment of diseases associated with the **expression** of Reg I.gamma.. The invention also describes diagnostic assays which utilize the polynucleotide to hybridize with the transcripts and/or genomic **DNA** encoding Reg I.gamma. and anti-human Reg I.gamma. antibodies which specifically bind to Reg I.gamma..

29. 5,837,493, Nov. 17, 1998, Human galectins; Jennifer L. Hillman, et al., 435/69.1, 252.3, 320.1, 325, 348, 371; 536/23.1, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,837,493 [IMAGE AVAILABLE]

L5: 29 of 108

ABSTRACT:

The present invention provides two novel human galectins (designated individually as GAL-5HA and GAL-5HB, and collectively as GAL-5H) and polynucleotides which identify and encode GAL-5H. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding GAL-5H and a method

for producing GAL-5H. The invention also provides for use of GAL-5H and agonists, antibodies, or antagonists specifically binding GAL-5H, in the prevention and treatment of diseases associated with **expression** of GAL-5H. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding GAL-5H for the treatment of diseases associated with the **expression** of GAL-5H. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding GAL-5H.

30. 5,834,242, Nov. 10, 1998, Human clathrin-associated protein; Olga Bandman, et al., 435/69.1, 320.1, 325; 536/23.1, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,834,242 [IMAGE AVAILABLE] L5: 30 of 108

ABSTRACT:

The present invention provides a new human clathrin-associated protein (CLAPH) and polynucleotides which identify and encode CLAPH. The invention also provides **expression** vectors, host cells, antibodies and antagonists. The invention also provides methods for the prevention and treatment of diseases associated with **expression** of CLAPH, as well as diagnostic assays.

31. 5,834,241, Nov. 10, 1998, Vesicle trafficking protein; Jennifer L. Hillman, et al., 435/69.1, 6, 252.3, 320.1, 325; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,834,241 [IMAGE AVAILABLE] L5: 31 of 108

ABSTRACT:

The present invention provides a human vesicle trafficking protein (HVT) and polynucleotides which identify and encode HVT. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. In addition, the invention provides methods for producing HVT and for treating or preventing disorders associated with **expression** of HVT.

32. 5,834,240, Nov. 10, 1998, **DNA** encoding a transforming growth factor-.beta. receptor associated protein; Olga Bandman, et al., 435/69.1, 6, 320.1; 530/350; 536/23.5, 24.3 [IMAGE AVAILABLE]

US PAT NO: 5,834,240 [IMAGE AVAILABLE] L5: 32 of 108

ABSTRACT:

The present invention provides a transforming growth factor-.beta. receptor associated protein (TGFAS) and polynucleotides which identify

and encode TGFAS. The invention also provides **expression** vectors, host cells, agonists, antibodies, and antagonists. The invention also provides methods for treating disorders associated with **expression** of TGFAS.

33. 5,834,239, Nov. 10, 1998, Polynucleotides encoding a cofactor A-like protein; Jennifer L. Hillman, et al., 435/69.1, 6, 252.3, 320.1, 325; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,834,239 [IMAGE AVAILABLE] L5: 33 of 108

ABSTRACT:

The present invention provides a human cofactor A-like protein (COAPR) and polynucleotides which identify and encode COAPR. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of COAPR.

34. 5,834,238, Nov. 10, 1998, Human GTP binding protein; Jennifer L. Hillman, et al., 435/69.1, 6, 252.3, 320.1; 530/350; 536/23.1, 23.5, 24.31, 24.32 [IMAGE AVAILABLE]

US PAT NO: 5,834,238 [IMAGE AVAILABLE] L5: 34 of 108

ABSTRACT:

The present invention provides a human GTP binding protein (HGBP) and polynucleotides which encode HGBP. The invention also provides **expression** vectors, host cells, agonists, antisense molecules, antibodies, or antagonists. The invention also provides methods for treating disorders associated with **expression** of HGBP.

35. 5,834,192, Nov. 10, 1998, Human cachexia associated protein; Ingrid Erika Akerblom, et al., 435/6, 252.3, 320.1, 325; 514/44; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,834,192 [IMAGE AVAILABLE] L5: 35 of 108

ABSTRACT:

The present invention provides a polynucleotide (hcap) isolated from a breast tumor library which identifies and encodes a human cachexia-associated protein (HCAP). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding HCAP. The invention also provides for the therapeutic use of purified HCAP in the treatment of severe or moderate obesity, and for the therapeutic use of antisense molecules,

antibodies, antagonists or inhibitors in the treatment of tumor-induced cachexia. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, or fragments thereof, or antibodies which specifically bind to the polypeptide.

36. 5,833,981, Nov. 10, 1998, Human phosphorylase kinase gamma subunit; Olga Bandman, et al., 424/94.5; 435/69.1, 194, 252.3, 320.1; 530/350; 536/23.2 [IMAGE AVAILABLE]

US PAT NO: 5,833,981 [IMAGE AVAILABLE] L5: 36 of 108

ABSTRACT:

The present invention provides a novel human phosphorylase kinase gamma subunit (PHKG) and the polynucleotide which identifies and encodes PHKG. The invention provides for **expression** vectors and host cells comprising the **nucleic** acid sequence encoding PHKG. The invention also provides pharmaceutical compositions containing purified PHKG or antisense molecules to PHKG for the treatment of diseases associated with **expression** of PHKG. The invention also includes diagnostic compositions containing the polynucleotide, fragments or the complement thereof, which hybridize with the genomic sequence or the transcript of polynucleotides encoding PHKG or anti-PHKG antibodies which specifically bind to PHKG, and the use of such compositions for diagnosis of disease.

37. 5,831,059, Nov. 3, 1998, Human COP9 developmental protein; Jennifer L. Hillman, et al., 536/23.5; 435/6, 69.1, 252.3, 320.1; 536/23.1, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,831,059 [IMAGE AVAILABLE] L5: 37 of 108

ABSTRACT:

The present invention provides a human COP9 protein (HuCOP9) and polynucleotides which identify and encode HuCOP9. The invention also provides **expression** vectors, host cells, antibodies and antagonists. The invention also provides methods for the prevention and treatment of diseases associated with **expression** of HuCOP9, as well as diagnostic assays.

38. 5,831,052, Nov. 3, 1998, New human translocation associated protein; Jennifer L. Hillman, et al., 536/23.1; 435/6, 69.1, 69.3, 71.1, 252.3, 273, 320.1; 530/350; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,831,052 [IMAGE AVAILABLE] L5: 38 of 108

ABSTRACT:

The present invention provides a human translocation associated protein (Gp25L-H) and polynucleotides which identify and encode Gp25L-H. The invention also provides **expression** vectors, host cells, antibodies and antagonists. The invention also provides methods for the prevention and treatment of diseases associated with **expression** of Gp25L-H, as well as diagnostic assays.

39. 5,831,049, Nov. 3, 1998, Human thioredoxin; Jennifer L. Hillman, et al., 536/23.1; 435/6, 69.1, 69.3, 252.3, 273, 320.1; 530/350; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,831,049 [IMAGE AVAILABLE] L5: 39 of 108

ABSTRACT:

The present invention provides a human thioredoxin (TRDX) and polynucleotides which identify and encode TRDX. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding TRDX and a method for producing TRDX. The invention also provides for agonists, antibodies, or antagonists specifically binding TRDX, and their use, in the prevention and treatment of diseases associated with **expression** of TRDX. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding TRDX for the treatment of diseases associated with the **expression** of TRDX. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding TRDX in the production of recombinant proteins. The invention also provides for the use of purified TRDX in the production of recombinant proteins. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding TRDX.

40. 5,831,018, Nov. 3, 1998, Human cytochrome B5; Jennifer L. Hillman, et al., 530/350; 435/69.1, 252.3, 320.1; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,831,018 [IMAGE AVAILABLE] L5: 40 of 108

ABSTRACT:

The present invention provides a human cytochrome b5 (HCB5) and polynucleotides which encode HCB5. The invention also provides genetically engineered **expression** vectors and host cells and a method for producing HCB5. The invention also provides for agonists, antisense molecules, antibodies, or antagonists of HCB5, and their use in the prevention and treatment of diseases associated with **expression** of HCB5. The invention also provides a method for detecting polynucleotides

which encode HCB5.

41. 5,830,660, Nov. 3, 1998, Tumorigenesis protein; Jennifer L. Hillman, et al., 435/6, 69.1, 69.3, 71.1, 252.3, 273, 320.1; 514/44; 530/350; 536/23.1, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,830,660 [IMAGE AVAILABLE] L5: 41 of 108

ABSTRACT:

The present invention provides a human tumorigenesis protein (HTAP) and polynucleotides which identify and encode HTAP. In addition, the invention provides **expression** vectors and host cells, agonists, antibodies, and antagonists. The invention also provides methods for producing HTAP and for treating or preventing disorders associated with the **expression** of HTAP.

42. 5,827,711, Oct. 27, 1998, Succinate-ubiquinone reductase subunit; Preeti Lal, et al., 435/191, 189, 252.3, 252.33, 254.11, 254.2, 320.1, 325, 419; 536/23.2, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,827,711 [IMAGE AVAILABLE] L5: 42 of 108

ABSTRACT:

The present invention provides a human succinate-ubiquinone reductase membrane anchor subunit (SDHMA) and polynucleotides which encode SDHMA. The invention also provides **expression** vectors, host cells, agonists, antisense molecules, antibodies, or antagonists. The invention also provides methods for treating disorders associated with **expression** of SDHMA.

43. 5,824,500, Oct. 20, 1998, **Nucleic** acid encoding novel human KDEL receptor; Olga Bandman, et al., 435/69.1, 252.3, 254.11, 320.1, 325; 536/23.5, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,824,500 [IMAGE AVAILABLE] L5: 43 of 108

ABSTRACT:

The present invention provides a novel human KDEL receptor (NHKR) and polynucleotides which identify and encode NHKR. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding NHKR and a method for producing NHKR. The invention also provides for agonists, antibodies, or antagonists specifically binding NHKR, and their use, in the prevention and treatment of diseases associated with **expression** of NHKR. Additionally, the invention provides for the use of antisense molecules

to polynucleotides encoding NHKR for the treatment of diseases associated with the **expression** of NHKR. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding NHKR.

44. 5,824,485, Oct. 20, 1998, Methods for generating and screening novel metabolic pathways; Katie A. Thompson, et al., 435/6, 69.1, 320.1; 536/23.1 [IMAGE AVAILABLE]

US PAT NO: 5,824,485 [IMAGE AVAILABLE] L5: 44 of 108

ABSTRACT:

The present invention relates to a novel drug discovery system for generating and screening molecular diversity. The system provides methods for mixing and cloning genetic materials from a plurality of species of organisms in combinatorial gene **expression** **libraries** to generate novel metabolic pathways and classes of compounds. The system also involves methods for pre-screening or identifying for host organisms containing a library that are capable of generating such novel pathways and compounds. The host organisms may be useful in drug screening for particular diseases, and in commercial production of compounds of interest. The methods of the invention are also useful in preserving the genomes of organisms that are known or prospective sources of drugs.

45. 5,821,086, Oct. 13, 1998, Human glycoprotein; Olga Bandman, et al., 435/69.3, 69.1, 252.3, 320.1, 325; 530/350; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,821,086 [IMAGE AVAILABLE] L5: 45 of 108

ABSTRACT:

The present invention provides polynucleotides which identify and encode a novel human glycoprotein (SC2H). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding SC2H. The invention also provides for the use of substantially purified SC2H and its agonists in the commercial production of recombinant proteins for the treatment of diseases associated with the **expression** of SC2H. Additionally, the invention provides for the use of antisense molecules to SC2H in the treatment of diseases associated with the **expression** of SC2H. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotides which hybridize with naturally occurring sequences encoding SC2H and antibodies which specifically bind to the protein.

46. 5,817,497, Oct. 6, 1998, Glutathione s-transferase; Surya K. Goli,

et al., 435/193, 252.3, 252.33, 320.1; 536/23.1, 23.2, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,817,497 [IMAGE AVAILABLE] L5: 46 of 108

ABSTRACT:

The present invention provides a human glutathione S-transferase (HGST) and polynucleotides which identify and encode HGST. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding HGST and a method for producing HGST. The invention also provides for agonists, antibodies, or antagonists specifically binding HGST, and their use, in the prevention and treatment of cancer and other diseases associated with the **expression** of HGST. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HGST for the treatment of cancer and other diseases associated with the **expression** of HGST. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HGST.

47. 5,817,494, Oct. 6, 1998, Ubiquitin conjugation proteins; Olga Bandman, et al., 435/183, 252.3, 320.1; 536/23.2, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,817,494 [IMAGE AVAILABLE] L5: 47 of 108

ABSTRACT:

The present invention provides a human ubiquitin conjugation system protein (UCSP) and polynucleotides which encode UCSP. The invention also provides **expression** vectors, host cells, agonists, antisense molecules, antibodies, or antagonists. The invention also provides methods for treating disorders associated with **expression** of UCSP.

48. 5,817,482, Oct. 6, 1998, Disease related nucleotide kinases; Olga Bandman, et al., 435/69.1, 6, 194, 252.3, 320.1; 530/350; 536/23.1, 23.5, 24.31, 24.33 [IMAGE AVAILABLE]

US PAT NO: 5,817,482 [IMAGE AVAILABLE] L5: 48 of 108

ABSTRACT:

The invention provides human nucleotide kinases and polynucleotides which identify and encode DRNK. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of DRNK.

49. 5,817,480, Oct. 6, 1998, **DNA** encoding a histamine H2 receptor; Lynn E. Murry, et al., 435/69.1, 91.41; 530/350; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,817,480 [IMAGE AVAILABLE] L5: 49 of 108

ABSTRACT:

The present invention provides a novel histamine H2 receptor (H2RH) and polynucleotides which identify and encode H2RH. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding H2RH and a method for producing H2RH. The invention also provides for agonists, antibodies, or antagonists specifically binding H2RH, and their use, in the prevention and treatment of diseases in which H2RH is expressed. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding H2RH for the treatment of diseases associated with the **expression** of H2RH. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding H2RH.

50. 5,814,481, Sep. 29, 1998, Heat shock-like protein; Jennifer L. Hillman, et al., 435/69.1, 252.3, 254.11, 320.1, 325, 410; 536/23.1 [IMAGE AVAILABLE]

US PAT NO: 5,814,481 [IMAGE AVAILABLE] L5: 50 of 108

ABSTRACT:

The present invention provides a novel heat shock-like protein (HSPRO) and polynucleotides which identify and encode HSPRO. The invention also provides **expression** vectors, host cells, agonists, antibodies, and antagonists. The invention also provides methods for treating disorders associated with **expression** of HSPRO.

51. 5,814,480, Sep. 29, 1998, **DNA** encoding human metallothionein; Jennifer L. Hillman, et al., 435/69.1, 252.3; 536/23.1, 23.5, 24.3, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,814,480 [IMAGE AVAILABLE] L5: 51 of 108

ABSTRACT:

The present invention provides a human metallothionein (HMBP-I) and polynucleotides which identify and encode HMBP-I. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding HMBP-I and a method for producing HMBP-I. The invention also provides for agonists,

antibodies, or antagonists specifically binding HMBP-I, and their use, in the prevention and treatment of diseases associated with **expression** of HMBP-I. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HMBP-I for the treatment of diseases associated with the **expression** of HMBP-I. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HMBP-I.

52. 5,814,451, Sep. 29, 1998, Subunits of NADH dehydrogenase; Olga Bandman, et al., 435/6; 475/191; 536/23.2 [IMAGE AVAILABLE]

US PAT NO: 5,814,451 [IMAGE AVAILABLE] L5: 52 of 108

ABSTRACT:

The present invention provides four NADH dehydrogenase subunits (designated individually as NDS-1, NDS-2, NDS-3, and NDS-4 and collectively as NDS) and polynucleotides which identify and encode NDS. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding NDS and a method for producing NDS. The invention also provides for use of NDS and agonists, antibodies, or antagonists specifically binding NDS, in the prevention and treatment of diseases associated with **expression** of NDS. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding NDS for the treatment of diseases associated with the **expression** of NDS. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding NDS.

53. 5,811,520, Sep. 22, 1998, Human phospholipase inhibitor protein; Phillip R. Hawkins, et al., 530/350 [IMAGE AVAILABLE]

US PAT NO: 5,811,520 [IMAGE AVAILABLE] L5: 53 of 108

ABSTRACT:

The present invention provides a polynucleotide (gipl) the partial sequence for which was initially isolated from a THP-1 cDNA library and which identifies and encodes a novel human phospholipase inhibitor (GIPL). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding GIPL. The invention also provides for the use of purified GIPL and its agonists in pharmaceutical compositions for the treatment of diseases associated with the abnormal or excess phospholipase activity. Additionally, the invention provides for the use of antisense molecules to gipl or inhibitors of GIPL in pharmaceutical compositions for the prevention of pregnancy or treatment of Alzheimer's disease. The

invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, fragments or the complement thereof, which hybridize with the genomic sequence or the transcript of gipl, or anti-GIPL antibodies which specifically bind to the polypeptide, GIPL.

54. 5,804,419, Sep. 8, 1998, Calcium-binding phosphoprotein; Olga Bandman, et al., 435/69.1, 6, 252.3, 254.11, 320.1, 325; 536/23.5, 24.31
[IMAGE AVAILABLE]

US PAT NO: 5,804,419 [IMAGE AVAILABLE] L5: 54 of 108

ABSTRACT:

The invention provides a human calcium-binding phosphoprotein (CBPP-1) and polynucleotides which identify and encode CBPP-1. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of CBPP-1.

55. 5,804,185, Sep. 8, 1998, **RNA** editing enzyme REE-2; Olga Bandman, et al., 424/94.61; 435/227, 252.3, 320.1, 325, 419; 536/23.2, 24.31
[IMAGE AVAILABLE]

US PAT NO: 5,804,185 [IMAGE AVAILABLE] L5: 55 of 108

ABSTRACT:

The present invention provides a human **RNA** editing enzyme (REE-2) and polynucleotides which identify and encode REE-2. The invention also provides **expression** vectors and host cells, agonists, antibodies, or antagonists. The invention provides methods for producing REE-2 and for treating diseases associated with **expression** of REE-2.

56. 5,801,026, Sep. 1, 1998, Use of plant fatty acyl hydroxylases to produce hydroxylated fatty acids and derivatives in plants; Chris Somerville, et al., 800/281; 435/134; 530/377; 536/23.6 [IMAGE AVAILABLE]

US PAT NO: 5,801,026 [IMAGE AVAILABLE] L5: 56 of 108

ABSTRACT:

The present invention relates to the identification of **nucleic** acid sequences and constructs, and methods related thereto, and the use of these sequences and constructs to produce genetically modified plants for the purpose of altering the composition of plant oils, waxes and related compounds.

57. 5,798,249, Aug. 25, 1998, Human protein disulfide isomerase; Scott Michael Braxton, et al., 435/233, 69.1, 252.3, 320.1; 530/350; 536/23.1, 23.2, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,798,249 [IMAGE AVAILABLE]

L5: 57 of 108

ABSTRACT:

The present invention provides a polynucleotide (pdih) the partial sequence for which was initially isolated from a lung cDNA library and which identifies and encodes a novel human protein disulfide isomerase (PDIH). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding PDIH. The invention also provides for the use of purified PDIH and its agonists in the commercial production of recombinant proteins and in pharmaceutical compositions for the treatment of diseases associated with the abnormal **expression** of PDIH. Additionally, the invention provides for the use of antisense molecules to pdih or inhibitors of PDIH in pharmaceutical compositions for treatment of diseases resulting secretion of PDIH. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, fragments or the complement thereof, which hybridize with the genomic sequence or the transcript of pdih, or anti-PDIH antibodies which specifically bind to the polypeptide, PDIH.

58. 5,798,246, Aug. 25, 1998, Cyclic nucleotide phosphodiesterase; Janice Au-Young, et al., 435/196, 320.1, 325; 536/23.2, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,798,246 [IMAGE AVAILABLE]

L5: 58 of 108

ABSTRACT:

The present invention relates to a heretofore uncharacterized family of cyclic nucleotide phosphodiesterases (CN PCD8) and provides specific polynucleotide and amino acid sequences which encode and identify CN PDE8 family members designated herein as CN PDE8A and CN PDE8B. The present invention also relates to the use of proteins, peptides and organic molecules capable of modulating CN PDE8 activity to inhibit or enhance phosphodiesterase activity associated with disease. The present invention further relates to the use of CN PDE8 and genetically engineered host cells that express CN PDE8 to evaluate and screen for substances and compounds that modulate cyclic nucleotide phosphodiesterase activity. The present invention also provides for cn pde8 antisense molecules. The invention provides genetically engineered **expression** vectors and host cells for the production of purified CN PDE8 polypeptide. The present invention further provides pharmaceutical compositions and methods of

treatment based on the identification of agonist, antagonists and inhibitors of CN PDE8. The invention specifically provides for use of the cn pde8 polynucleotide sequences as a diagnostic composition for the detection of disease.

59. 5,795,724, Aug. 18, 1998, Human N-acetyl transferase; Jennifer L. Hillman, et al., 435/6, 193, 252.3, 320.1; 536/23.2 [IMAGE AVAILABLE]

US PAT NO: 5,795,724 [IMAGE AVAILABLE] L5: 59 of 108

ABSTRACT:

The invention provides a human N-acetyl transferase (NACTH) and polynucleotides which identify and encode NACTH. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of NACTH.

60. 5,792,648, Aug. 11, 1998, Human macrophage antigen; Jennifer L. Hillman, et al., 435/252.3, 69.1, 320.1, 325; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,792,648 [IMAGE AVAILABLE] L5: 60 of 108

ABSTRACT:

The present invention provides a polynucleotide which identifies and encodes a novel human macrophage antigen (TMAH). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding TMAH. The invention also provides for the use of substantially purified TMAH and its agonists, antibodies, antagonists or inhibitors in pharmaceutical compositions for treatment of diseases associated with **expression** of TMAH. The invention also describes diagnostic assays which utilize the polynucleotide to hybridize with the genomic sequence or transcripts encoding TMAH and anti-TMAH antibodies which specifically bind to TMAH.

61. 5,792,626, Aug. 11, 1998, Human interferon-inducible protein; Jennifer L. Hillman, et al., 435/69.1, 70.1, 320.1; 514/2; 530/350; 536/23.1, 24.3, 25.3 [IMAGE AVAILABLE]

US PAT NO: 5,792,626 [IMAGE AVAILABLE] L5: 61 of 108

ABSTRACT:

The present invention provides a novel human interferon-inducible protein (HIFI) and the polynucleotides which identify and encode HIFI. The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding HIFI and for

a method for producing the protein. The invention also provides compositions containing HIFI.

62. 5,789,198, Aug. 4, 1998, Human leptin receptor-related protein; Ingrid E. Akerblom, 435/69.1, 320.1, 325; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,789,198 [IMAGE AVAILABLE] L5: 62 of 108

ABSTRACT:

The present invention provides a polynucleotide which identifies and encodes a novel human leptin receptor-related protein (LRRP). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding LRRP.

63. 5,786,150, Jul. 28, 1998, F.sub.0 ATP synthase subunit; Jennifer L. Hillman, et al., 435/6, 232, 252.3, 320.1; 536/23.2 [IMAGE AVAILABLE]

US PAT NO: 5,786,150 [IMAGE AVAILABLE] L5: 63 of 108

ABSTRACT:

The present invention provides a human ATP synthase subunit (ASYS) and polynucleotides which encode ASYS. The invention also provides **expression** vectors, host cells, agonists, antisense molecules, antibodies, or antagonists. The invention also provides methods for producing ASYS and for treating disorders associated with **expression** of ASYS.

64. 5,786,148, Jul. 28, 1998, Polynucleotides encoding a novel prostate-specific kallikrein; Olga Bandman, et al., 435/6, 212, 252.3, 320.1; 536/23.2, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,786,148 [IMAGE AVAILABLE] L5: 64 of 108

ABSTRACT:

The present invention provides a human prostate-specific kallikrein (HPSK) and polynucleotides which identify and encode HPSK. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding HPSK and a method for producing HPSK. The invention also provides for agonists, antibodies, or antagonists specifically binding HPSK, and their use, in the prevention and treatment of diseases associated with **expression** of HPSK. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HPSK for the treatment of diseases associated with the **expression** of HPSK. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the

complement thereof, and antibodies specifically binding HPSK.

65. 5,783,431, Jul. 21, 1998, Methods for generating and screening novel metabolic pathways; Todd C. Peterson, et al., 435/455, 320.1, 463, 466, 471, 472, 474, 489; 536/23.1 [IMAGE AVAILABLE]

US PAT NO: 5,783,431 [IMAGE AVAILABLE] L5: 65 of 108

ABSTRACT:

The present invention relates to a novel drug discovery system for generating and screening molecular diversity. The system provides methods for mixing and cloning genetic materials from a plurality of species of organisms in combinatorial gene **expression** **libraries** to generate novel metabolic pathways and classes of compounds. The system also provides mobilizable combinatorial gene **expression** **libraries** that can be transferred from one species of host organism to another for **expression**. Also provided are specialized cloning vectors for making mobilizable gene **expression** **libraries**. The system also involves methods for pre-screening or identifying for host organisms containing a library that are capable of generating such novel pathways and compounds.

66. 5,783,418, Jul. 21, 1998, Human homolog of the rat G protein gamma-5 subunit; Janice Au-Young, et al., 435/69.1, 320.1, 325; 536/23.2 [IMAGE AVAILABLE]

US PAT NO: 5,783,418 [IMAGE AVAILABLE] L5: 66 of 108

ABSTRACT:

The present invention provides a **nucleic** acid sequence which identifies and encodes a G protein gamma subunit (gpg) which was isolated from human pituitary gland. The invention provides for genetically engineered **expression** vectors and host cells comprising **nucleic** acid sequence encoding GPG. The invention also provides for purified GPG.

67. 5,780,235, Jul. 14, 1998, Human voltage-dependent anion channel; Olga Bandman, et al., 435/6, 7.23; 530/350; 536/23.1, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,780,235 [IMAGE AVAILABLE] L5: 67 of 108

ABSTRACT:

The present invention provides a polynucleotide which identifies and encodes a novel human voltage-dependent anion channel HACH and HACH itself. The invention provides for genetically engineered **expression** vectors, host cells containing the vector and a method for producing

HACH. The invention also provides a method for identifying pharmaceutical compositions inhibiting the **expression** and activity of HACH and for the use of such compositions for the treatment of cancer and proliferative diseases. The invention also provides diagnostic assays which utilize the polynucleotide to hybridize with the transcripts encoding HACH or anti-HACH antibodies which specifically bind to HACH in normal or diseased tissues.

68. 5,776,759, Jul. 7, 1998, Two novel human cathepsin proteins; Olga Bandman, et al., 435/226, 252.3, 254.11, 320.1, 325; 536/23.2, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,776,759 [IMAGE AVAILABLE] L5: 68 of 108

ABSTRACT:

The present invention provides two novel human cathepsin proteins (HCPs) and polynucleotides encoding HCPs. The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding HCPs. The invention also provides for the production and use of antibodies to HCPs in pharmaceutical compositions for the treatment of disease processes that include cancers, inflammation, metastasis and peptide and proenzyme processing. In addition, the invention provides for the production and use of inhibitors of HSPs in pharmaceutical compositions for the treatment of diseases. The invention also describes diagnostic assays which utilize the polynucleotide to hybridize with the transcripts encoding HCPs. The invention also provides for the use of antisense molecules in pharmaceutical compositions as a therapeutics in cancers, inflammation, metastasis and peptide and proenzyme processing.

69. 5,776,753, Jul. 7, 1998, Human peroxisomal thioesterase; Jennifer L. Hillman, et al., 435/196, 69.1, 252.3, 252.33, 254.1, 320.1, 325; 536/23.2 [IMAGE AVAILABLE]

US PAT NO: 5,776,753 [IMAGE AVAILABLE] L5: 69 of 108

ABSTRACT:

The invention provides a human peroxisomal thioesterase (PxTE) and polynucleotides which identify and encode PxTE. The invention also provides **expression** vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with **expression** of PxTE.

70. 5,776,732, Jul. 7, 1998, Human induced tumor protein; Janice Au-Young, et al., 435/69.1, 252.3, 254.11, 254.2; 536/23.1, 23.5 [IMAGE

AVAILABLE]

US PAT NO: 5,776,732 [IMAGE AVAILABLE]

L5: 70 of 108

ABSTRACT:

The present invention provides a polynucleotide which identifies and encodes a novel human induced tumor protein (HITP). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding HITP. The invention also provides for the production and use of substantially purified HITP in pharmaceutical compositions to force differentiation and to stop cell division in cancerous cells. The invention also describes diagnostic assays which utilize the polynucleotide to hybridize with the transcripts encoding HITP and the anti-HITP antibodies which specifically bind to HITP.

71. 5,776,698, Jul. 7, 1998, Regulation of gene transcription; Jennifer L. Hillman, et al., 435/69.1, 252.3, 320.1, 325; 536/23.1, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,776,698 [IMAGE AVAILABLE]

L5: 71 of 108

ABSTRACT:

The present invention provides a human regulator of gene transcription (HRGT) and polynucleotides which encode HRGT. The invention also provides **expression** vectors, host cells, agonists, antisense molecules, antibodies, or antagonists. The invention also provides methods for treating disorders associated with **expression** of HRGT.

72. 5,773,580, Jun. 30, 1998, Human protein kinase c inhibitor homolog; Janice Au-Young, et al., 530/350 [IMAGE AVAILABLE]

US PAT NO: 5,773,580 [IMAGE AVAILABLE]

L5: 72 of 108

ABSTRACT:

The present invention provides a polynucleotide (ipkc) which identifies and encodes a novel human protein kinase C inhibitor homolog (IPKC). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding IPKC. The invention also provides for the use of purified IPKC and its agonists in the commercial production of recombinant proteins and in pharmaceutical compositions for the treatment of diseases associated with the **expression** of IPKC. Additionally, the invention provides for the use of antisense molecules to ipkc in pharmaceutical compositions for treatment of diseases associated with the **expression** of IPKC. The

invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, fragments or the complement thereof, which hybridize with the genomic sequence or the transcript of ipkc. The present invention also relates to anti-IPKC antibodies which specifically bind to IPKC.

73. 5,763,589, Jun. 9, 1998, Human membrane protein; Jennifer L. Hillman, et al., 536/23.1; 435/320.1; 536/24.3, 24.5 [IMAGE AVAILABLE]

US PAT NO: 5,763,589 [IMAGE AVAILABLE] L5: 73 of 108

ABSTRACT:

The present invention provides a novel human integral membrane (IMP) and polynucleotides which identify and encode IMP. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding IMP and a method for producing IMP. The invention also provides for agonists, antibodies, or antagonists specifically binding IMP, and their use, in the prevention and treatment of diseases associated with **expression** of IMP. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding IMP for the treatment of diseases associated with the **expression** of IMP. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding IMP.

74. 5,763,569, Jun. 9, 1998, Calcium receptor-active molecules; Edward M. Brown, et al., 530/324; 435/7.1, 69.1, 252.3, 320.1; 530/300, 325, 326, 327, 350; 536/23.1, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,763,569 [IMAGE AVAILABLE] L5: 74 of 108

ABSTRACT:

The present invention features calcium receptor polypeptides and fragments thereof. Uses of a calcium receptor polypeptide include providing a polypeptide having the activity of a calcium receptor polypeptide. Calcium receptor polypeptide fragments can be used, for example, to generate antibodies to a calcium receptor polypeptide.

75. 5,763,248, Jun. 9, 1998, CDNA encoding a human ATP synthase Fo subunit (ASYSD); Jennifer L. Hillman, et al., 435/183, 69.1, 252.33, 320.1, 325; 536/23.1, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,763,248 [IMAGE AVAILABLE] L5: 75 of 108

ABSTRACT:

The present invention provides a human ATP synthase d subunit (ASYSD) and polynucleotides which encode ASYSD. The invention also provides **expression** vectors, host cells, agonists, antisense molecules, antibodies, or antagonists. The invention also provides methods for producing ASYSD and for treating disorders associated with **expression** of ASYSD.

76. 5,763,239, Jun. 9, 1998, Production and use of normalized **DNA** libraries; Jay M. Short, et al., 435/6, 91.2, 489; 536/25.4 [IMAGE AVAILABLE]

US PAT NO: 5,763,239 [IMAGE AVAILABLE] L5: 76 of 108

ABSTRACT:

Disclosed is a process for forming a normalized genomic **DNA** library from an environmental sample by (a) isolating a genomic **DNA** population from the environmental sample; (b) analyzing the complexity of the genomic **DNA** population so isolated; (c) at least one of (i) amplifying the copy number of the **DNA** population so isolated and (ii) recovering a fraction of the isolated genomic **DNA** having a desired characteristic; and (d) normalizing the representation of various DNAs within the genomic **DNA** population so as to form a normalized library of genomic **DNA** from the environmental sample. Also disclosed is a normalized genomic **DNA** library formed from an environmental sample by the process.

77. 5,763,220, Jun. 9, 1998, Human apoptosis-related calcium-binding protein; Jennifer L. Hillman, et al., 435/69.1, 252.3, 254.11, 320.1, 325; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,763,220 [IMAGE AVAILABLE] L5: 77 of 108

ABSTRACT:

The present invention provides a human apoptosis-related calcium-binding protein (HARC) and polynucleotides which identify and encode HARC. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding HARC and a method for producing HARC. The invention also provides for agonists, antibodies, or antagonists specifically binding HARC, and their use, in the prevention and treatment of diseases associated with **expression** of HARC. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HARC for the treatment of diseases associated with the **expression** of HARC. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HARC.

78. 5,763,198, Jun. 9, 1998, Screening assays for compounds; Klaus Peter Hirth, et al., 435/7.21, 7.23, 7.24, 7.94, 15, 21, 29; 436/518, 548
[IMAGE AVAILABLE]

US PAT NO: 5,763,198 [IMAGE AVAILABLE] L5: 78 of 108

ABSTRACT:

The invention is directed to rapid and quantitative assay systems for screening test compounds for their ability to modulate tyrosine kinase or phosphatase activities involved in signal transduction by determining the tyrosine phosphorylation state of a protein substrate using an anti-phosphotyrosine antibody and an antibody specific for the protein substrate. These assays may be practiced in a whole cell or cell-free system. The assays can be used to identify test compounds for use in therapeutic applications to disease processes in which tyrosine kinase or phosphatase activity in a signal transduction pathway contributes to a pathological process.

79. 5,759,812, Jun. 2, 1998, Human selenium-binding protein; Olga Bandman, et al., 435/69.2, 71.1, 252.33, 320.1; 536/23.1, 23.5, 24.31, 24.5 [IMAGE AVAILABLE]

US PAT NO: 5,759,812 [IMAGE AVAILABLE] L5: 79 of 108

ABSTRACT:

The present invention provides a human selenium-binding protein (HSEBP) and polynucleotides which identify and encode HSEBP. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding HSEBP and a method for producing HSEBP. The invention also provides for agonists and antibodies specifically binding HSEBP, and their use in the prevention and treatment of diseases associated with **expression** of HSEBP. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HSEBP for the treatment of diseases associated with the **expression** of HSEBP. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HSEBP.

80. 5,756,332, May 26, 1998, Guanosine monophosphate reductase; Jennifer L. Hillman, 435/189, 191, 252.3, 252.33, 320.1; 536/23.1, 23.2, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,756,332 [IMAGE AVAILABLE] L5: 80 of 108

ABSTRACT:

The present invention provides a human guanosine monophosphate reductase (HGMPR) and polynucleotides which identify and encode HGMPR. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding HGMPR and a method for producing HGMPR. The invention also provides for agonists, antibodies, or antagonists specifically binding HGMPR, and their use, in the prevention and treatment of diseases associated with **expression** of HGMPR. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HGMPR for the treatment of diseases associated with the **expression** of HGMPR. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HGMPR.

81. 5,756,310, May 26, 1998, CDNA encoding a human phospholemman-like protein (HPLP); Olga Bandman, et al., 435/69.1, 252.33, 320.1, 325; 536/23.1, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,756,310 [IMAGE AVAILABLE]

L5: 81 of 108

ABSTRACT:

The present invention provides a novel human phospholemman-like protein (HPLP) and the polynucleotides which identify and encode HPLP. The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding HPLP and for a method for producing the protein. The invention also provides pharmaceutical compositions containing HPLP and the use of such compositions for the prevention or treatment of diseases associated with the **expression** of HPLP. Additionally, the invention provides antisense molecules to HPLP and their use in the treatment of diseases associated with the **expression** of HPLP. The invention also provides diagnostic assays which utilize polynucleotides which hybridize with naturally occurring sequences encoding HPLP and antibodies which specifically bind to the protein.

82. 5,756,299, May 26, 1998, Human carbonyl reductase; Jennifer L. Hillman, et al., 435/6, 199, 252.3, 320.1, 325, 348, 358, 367; 536/23.2 [IMAGE AVAILABLE]

US PAT NO: 5,756,299 [IMAGE AVAILABLE]

L5: 82 of 108

ABSTRACT:

The present invention provides a human carbonyl reductase (HCRD) and polynucleotides which identify and encode HCRD. The invention also provides genetically engineered **expression** vectors and host cells

comprising the **nucleic** acid sequences encoding HCRD and a method for producing HCRD. The invention also provides for agonists, antibodies, or antagonists specifically binding HCRD, and their use, in the prevention and treatment of diseases associated with **expression** of HCRD.

Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HCRD for the treatment of diseases associated with the **expression** of HCRD. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HCRD.

83. 5,747,319, May 5, 1998, Human mRNA editing enzyme; Janice Au-Young, et al., 435/199, 243, 252.3, 254.11, 320.1, 325, 348, 410, 419; 536/23.2
[IMAGE AVAILABLE]

US PAT NO: 5,747,319 [IMAGE AVAILABLE] L5: 83 of 108

ABSTRACT:

The present invention provides a polynucleotide which identifies and encodes a novel human mRNA editing enzyme (REE). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding REE. The invention also provides for the use of substantially purified REE and its agonists, antagonists, or inhibitors in the commercial production of recombinant proteins and in pharmaceutical compositions for the treatment of diseases associated with the **expression** of REE. Additionally, the invention provides for the use of antisense molecules to REE in pharmaceutical compositions for treatment of diseases associated with the **expression** of REE. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, fragments or the complement thereof, which hybridize with the genomic sequence or the transcript of polynucleotides encoding REE or anti-REE antibodies which specifically bind to REE.

84. 5,741,667, Apr. 21, 1998, Tumor necrosis factor receptor-associated factors; David V. Goeddel, et al., 435/69.1, 252.3, 320.1; 536/23.5
[IMAGE AVAILABLE]

US PAT NO: 5,741,667 [IMAGE AVAILABLE] L5: 84 of 108

ABSTRACT:

The invention concerns new tumor necrosis factor receptor associated factors, designated TRAFs. The new factors are capable of specific association with the intracellular domain of the type 2 TNF receptor (TNF-R2) and CD40, and are involved in the mediation of TNF and CD40 ligand biological activities.

85. 5,739,010, Apr. 14, 1998, Human transcription factor; Jennifer L. Hillman, et al., 435/69.1, 243, 320.1, 325, 410; 536/23.1, 23.5 [IMAGE AVAILABLE]

US PAT NO: 5,739,010 [IMAGE AVAILABLE] L5: 85 of 108

ABSTRACT:

The present invention provides a human transcription factor (HTRAN) and polynucleotides which identify and encode HTRAN. The invention also provides **expression** vectors and host cells, agonists, antibodies, or antagonists. The invention provides methods for treating diseases associated with **expression** of HTRAN.

86. 5,739,009, Apr. 14, 1998, Adipocyte-specific differentiation-related protein; Jennifer L. Hillman, et al., 435/69.1, 252.3, 320.1, 325; 530/350; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,739,009 [IMAGE AVAILABLE] L5: 86 of 108

ABSTRACT:

The present invention provides a human adipocyte-specific differentiation-related protein (HADRP) and polynucleotides which identify and encode HADRP. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding HADRP and a method for producing HADRP. The invention also provides for agonists, antibodies, or antagonists specifically binding HADRP, and their use, in the prevention and treatment of diseases associated with **expression** of HADRP. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HADRP for the treatment of diseases associated with the **expression** of HADRP. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HADRP.

87. 5,738,985, Apr. 14, 1998, Method for selective inactivation of viral replication; Vincent J. Miles, et al., 435/5, 6, 7.1, 254.2 [IMAGE AVAILABLE]

US PAT NO: 5,738,985 [IMAGE AVAILABLE] L5: 87 of 108

ABSTRACT:

Method for screening for an antiviral agent, by determining whether a potential agent interacts with a virus or cellular component which allows or prevents preferential translation of a virus **RNA** compared to a

host **RNA** under virus infection conditions; and determining whether any interaction of the agent with the component reduces the level of translation of an **RNA** of the virus.

88. 5,734,038, Mar. 31, 1998, Human DBI/ACBP-like protein; Janice Au-Young, et al., 536/23.5; 435/69.3, 252.33, 320.1 [IMAGE AVAILABLE]

US PAT NO: 5,734,038 [IMAGE AVAILABLE] L5: 88 of 108

ABSTRACT:

The present invention provides polynucleotides which identify and encode a novel human Diazepam binding inhibitor/acyl-CoA binding protein (DBI/ACBP)-like protein (DBIH). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding DBIH. The invention also provides for the use of substantially purified DBIH for drug delivery as well as for the production of recombinant proteins for the treatment of diseases associated with the **expression** of DBIH. Additionally, the invention provides for the use of antisense molecules to DBIH in the treatment of diseases associated with the **expression** of DBIH. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotides which hybridize with naturally occurring sequences encoding DBIH and antibodies which specifically bind to the protein.

89. 5,728,820, Mar. 17, 1998, Human eosinophil-derived basic protein; Ingrid E. Akerblom, 536/23.5; 435/70.1, 320.1, 325; 536/24.31 [IMAGE AVAILABLE]

US PAT NO: 5,728,820 [IMAGE AVAILABLE] L5: 89 of 108

ABSTRACT:

The present invention provides a human eosinophil-derived basic protein (EBPH) and polynucleotides which identify and encode EBPH. The invention also provides genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequences encoding EBPH and a method for producing EBPH. The invention also provides for use of EBPH and agonists, antibodies or antagonists specifically binding EBPH, in the prevention and treatment of diseases associated with **expression** of EBPH. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding EBPH for the treatment of diseases associated with the **expression** of EBPH. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding EBPH.

90. 5,712,115, Jan. 27, 1998, Human cell death-associated protein; Phillip R. Hawkins, et al., 435/69.1, 320.1, 326; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,712,115 [IMAGE AVAILABLE] L5: 90 of 108

ABSTRACT:

The present invention provides a polynucleotide which identifies and encodes a human cell death-associated protein (cdap) which was isolated from a rheumatoid synovium library. The invention provides for genetically engineered **expression** vectors and host cells comprising a **nucleic** acid sequence encoding CDAP. The invention also provides for the therapeutic use of purified CDAP, cdap or its antisense molecules, or CDAP inhibitors in pharmaceutical compositions and for treatment of conditions or diseases associated with **expression** of CDAP. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, or fragments thereof, or antibodies which specifically bind to the polypeptide.

91. 5,703,057, Dec. 30, 1997, **Expression** **library** immunization; Stephen A. Johnston, et al., 514/44; 424/9.2, 422, 423; 435/6, 7.1, 320.1, 325; 536/22.1, 23.1, 23.2, 23.4, 23.5, 23.51, 23.7, 23.72, 23.74 [IMAGE AVAILABLE]

US PAT NO: 5,703,057 [IMAGE AVAILABLE] L5: 91 of 108

ABSTRACT:

A general method for vaccinating against any pathogen is presented. The method utilizes **expression** **library** immunization, where an animal is inoculated with an **expression** **library** constructed from fragmented genomic **DNA** of the pathogen. All potential epitopes of the pathogen's proteins are encoded in its **DNA**, and genetic immunization is used to directly introduce one or more **expression** **library** clones to the immune system, producing an immune response to the encoded protein. Inoculation of **expression** **libraries** representing portions of the *Mycoplasma pulmonis* genome was shown to protect mice from subsequent challenge by this natural pathogen. Protection against *Listeria* was also obtained using the method.

92. 5,688,938, Nov. 18, 1997, Calcium receptor-active molecules; Edward M. Brown, et al., 536/23.5; 435/7.1, 69.1, 252.3, 320.1; 530/300, 324, 326, 350; 536/23.1, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,688,938 [IMAGE AVAILABLE] L5: 92 of 108

ABSTRACT:

The present invention relates to the different roles inorganic ion receptors have in cellular and body processes. The present invention features: (1) molecules which can modulate one or more inorganic ion receptor activities, preferably the molecule can mimic or block an effect of an extracellular ion on a cell having an inorganic ion receptor, more preferably the extracellular ion is Ca.sup.2+ and the effect is on a cell having a calcium receptor; (2) inorganic ion receptor proteins and fragments thereof, preferably calcium receptor proteins and fragments thereof; (3) **nucleic** acids encoding inorganic ion receptor proteins and fragments thereof, preferably calcium receptor proteins and fragments thereof; (4) antibodies and fragments thereof, targeted to inorganic ion receptor proteins, preferably calcium receptor protein; and (5) uses of such molecules, proteins, **nucleic** acids and antibodies.

93. 5,683,910, Nov. 4, 1997, Human phosphorylase kinase gamma subunit; Olga Bandman, et al., 435/194; 424/94.5; 435/69.1, 193, 252.3, 320.1; 530/350; 536/23.2 [IMAGE AVAILABLE]

US PAT NO: 5,683,910 [IMAGE AVAILABLE] L5: 93 of 108

ABSTRACT:

The present invention provides a novel human phosphorylase kinase gamma subunit (HPHKG) and the polynucleotide which identifies and encodes HPHKG. The invention provides for **expression** vectors and host cells comprising the **nucleic** acid sequence encoding HPHKG. The invention also provides pharmaceutical compositions containing purified HPHKG or antisense molecules to HPHKG for the treatment of diseases associated with **expression** of HPHKG. The invention also includes diagnostic compositions containing the polynucleotide, fragments or the complement thereof, which hybridize with the genomic sequence or the transcript of polynucleotides encoding HPHKG or anti-HPHKG antibodies which specifically bind to HPHKG, and the use of such compositions for diagnosis of disease.

94. 5,683,872, Nov. 4, 1997, Polymers of oligonucleotide probes as the bound ligands for use in reverse dot blots; William A. Rudert, et al., 435/6, 91.2 [IMAGE AVAILABLE]

US PAT NO: 5,683,872 [IMAGE AVAILABLE] L5: 94 of 108

ABSTRACT:

A method of detecting **nucleic** acid sequences in which polymers of selected oligonucleotide probes which are complementary to a region in a **nucleic** acid sequence that is to be detected are bound to a

substrate. The polymers bound to the substrate contain multiple randomly repeated copies of a specific oligonucleotide probe and may be synthesized using enzymatic amplification techniques.

95. 5,668,292, Sep. 16, 1997, Use of plant fatty acyl hydroxylases to produce hydroxylated fatty acids and derivatives in plants; Chris Somerville, et al., 800/306; 530/377; 536/23.6; 800/281, 298, 312, 320.1, 322 [IMAGE AVAILABLE]

US PAT NO: 5,668,292 [IMAGE AVAILABLE] L5: 95 of 108

ABSTRACT:

The present invention relates to the identification of **nucleic** acid sequences and constructs, and methods related thereto, and the use of these sequences and constructs to produce genetically modified plants for the purpose of altering the composition of plant oils, waxes and related compounds.

96. 5,663,059, Sep. 2, 1997, Human phospholipase inhibitor; Phillip R. Hawkins, et al., 435/69.2, 320.1, 325, 348, 419; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,663,059 [IMAGE AVAILABLE] L5: 96 of 108

ABSTRACT:

The present invention provides a polynucleotide (gpl) the partial sequence for which was initially isolated from a THP-1 cDNA library and which identifies and encodes a novel human phospholipase inhibitor (GIPL). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding GIPL.

97. 5,658,754, Aug. 19, 1997, Cell-free synthesis and isolation of novel genes and polypeptides; Glenn H. Kawasaki, 435/69.1, 68.1, 69.2, 69.3, 69.4, 69.5, 69.6 [IMAGE AVAILABLE]

US PAT NO: 5,658,754 [IMAGE AVAILABLE] L5: 97 of 108

ABSTRACT:

A method for the cell-free synthesis and isolation of novel genes and polypeptides is provided. Within one embodiment, an **expression** unit is constructed onto which semi-random nucleotide sequences are attached. The semi-random nucleotide sequences are first transcribed to produce **RNA**, and then translated under conditions such that polysomes are produced. Polysomes which bind to a substance of interest are then

isolated and disrupted; and the released mRNA is recovered. The mRNA is used to construct cDNA which is expressed to produce novel polypeptides.

98. 5,648,239, Jul. 15, 1997, Human camp-dependent protein kinase inhibitor homolog; Phillip R. Hawkins, et al., 435/69.2, 320.1, 325, 348, 358, 367, 369, 419; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,648,239 [IMAGE AVAILABLE] L5: 98 of 108

ABSTRACT:

The present invention provides a polynucleotide (ipka) which identifies and encodes a novel human cAMP-dependent protein kinase A inhibitor homolog (IPKA). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding IPKA.

99. 5,648,238, Jul. 15, 1997, Human protein kinase C inhibitor homolog; Janice Au-Young, et al., 435/69.2, 252.3, 254.2, 320.1, 325, 348, 419; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,648,238 [IMAGE AVAILABLE] L5: 99 of 108

ABSTRACT:

The present invention provides a polynucleotide (ipkc) which identifies and encodes a novel human protein kinase C inhibitor homolog (IPKC). The invention provides for genetically engineered **expression** vectors and host cells comprising the **nucleic** acid sequence encoding IPKC.

100. 5,643,768, Jul. 1, 1997, Cell-free synthesis and isolation of novel genes and polypeptides; Glenn H. Kawasaki, 435/91.21, 68.1, 69.1, 91.51; 536/23.1 [IMAGE AVAILABLE]

US PAT NO: 5,643,768 [IMAGE AVAILABLE] L5: 100 of 108

ABSTRACT:

A method for the cell-free synthesis and isolation of novel genes and polypeptides is provided. Within one embodiment, an **expression** unit is constructed onto which semi-random nucleotide sequences are attached. The semi-random nucleotide sequences are first transcribed to produce **RNA**, and then translated under conditions such that polysomes are produced. Polysomes which bind to a substance of interest are then isolated and disrupted; and the released mRNA is recovered. The mRNA is used to construct cDNA which is expressed to produce novel polypeptides.

101. 5,643,752, Jul. 1, 1997, Tissue inhibitor of metalloproteinases;

Phillip R. Hawkins, et al., 435/69.2, 320.1, 325, 348, 419; 536/23.5
[IMAGE AVAILABLE]

US PAT NO: 5,643,752 [IMAGE AVAILABLE] L5: 101 of 108

ABSTRACT:

The present invention provides a **nucleic** acid sequence which encodes a novel tissue inhibitor of metalloproteinases (TIMP-4) which was isolated from cells of human uterus. The invention provides for genetically engineered **expression** vectors and host cells comprising **nucleic** acid sequence encoding TIMP-4. The invention also provides for purified TIMP-4.

102. 5,604,100, Feb. 18, 1997, Method and system for sequencing genomes; Mark W. Perlin, 435/6, 91.2 [IMAGE AVAILABLE]

US PAT NO: 5,604,100 [IMAGE AVAILABLE] L5: 102 of 108

ABSTRACT:

The present invention pertains to a method for sequencing genomes. The method comprises the steps of obtaining **nucleic** acid material from a genome. Then there is the step of constructing a clone library and one or more probe libraries from the **nucleic** acid material. Next there is the step of comparing the libraries to form comparisons. Then there is the step of combining the comparisons to construct a map of the clones relative to the genome. Next there is the step of determining the sequence of the genome by means of the map. The present invention also pertains to a system for sequencing a genome. The system comprises a mechanism for obtaining **nucleic** acid material from a genome. The system also comprises a mechanism for constructing a clone library and one or more probe libraries. The constructing mechanism is in communication with the **nucleic** acid material from a genome. Additionally, the system comprises a mechanism for comparing said libraries to form comparisons. The comparing mechanism is in communication with the said libraries. The system also comprises a mechanism for combining the comparisons to construct a map of the clones relative to the genome. The said combining mechanism is in communication with the comparisons. Further, the system comprises a mechanism for determining the sequence of the genome by means of said map. The said determining mechanism is in communication with said map. The present invention additionally pertains to a method for producing a gene of a genome.

103. 5,563,060, Oct. 8, 1996, Micro-libraries for screening cell populations; John Hozier, 435/346, 252.33, 254.22, 348, 419 [IMAGE

AVAILABLE]

US PAT NO: 5,563,060 [IMAGE AVAILABLE]

L5: 103 of 108

ABSTRACT:

Micro-scale methods are applied in producing, maintaining, replicating, screening, manipulating and sub-cloning cell libraries. By means of the micro-scale methods of the invention, micro-libraries of single-cells or micro-colonies arranged in a definite two-dimensional pattern are produced, propagated, replicated, screened, examined and manipulated. It is feasible to sub-clone cells and micro-colonies from the micro-libraries, particularly those identified by screening and examining the micro-libraries, for the purposes of purification and large-scale cultivation. Automated and scaleable methods can be applied to screen practically any collection of cells attached to a surface. These methodologies are useful for making and screening on a micro-scale genomic libraries, cDNA libraries, and libraries of hybridoma cells, *inter alia*. Similar approaches employ such methods and micro-libraries for toxicological, pharmaceutical, mutagenetic and carcinogenic screening.

104. 5,563,039, Oct. 8, 1996, TNF receptor-associated intracellular signaling proteins and methods of use; David V. Goeddel, et al., 435/7.1, 6, 69.1, 252.3, 320.1; 436/501; 530/300, 350 [IMAGE AVAILABLE]

US PAT NO: 5,563,039 [IMAGE AVAILABLE]

L5: 104 of 108

ABSTRACT:

A novel family of intracellular signaling proteins, exemplified by a Tumor Necrosis Factor Receptor-1 Associated Death Domain protein (TRADD), share a common TRADD sequence and include transducers of signals that modulate cell growth, differentiation and apoptosis. As such, the TRADD proteins, TRADD-encoding **nucleic** acids, and natural TRADD intracellular binding targets provide both important targets and means for therapeutic intervention. In particular, the invention provides isolated TRADDs and TRADD fragments, **nucleic** acids encoding the subject TRADDs and TRADD fragments or capable of selectively hybridizing to such TRADD-encoding **nucleic** acids, vectors and cells comprising TRADD-encoding **nucleic** acids, and TRADD-specific binding reagents. These compositions find use in diagnostic and therapeutic methods for disease associated with undesirable cell growth, migration, differentiation and/or cytokine signal responsiveness and methods and compositions for identifying lead compounds and pharmacological agents.

105. 5,352,600, Oct. 4, 1994, Purified thermostable enzyme; David H.

Gelfand, et al., 435/194, 183 [IMAGE AVAILABLE]

US PAT NO: 5,352,600 [IMAGE AVAILABLE]

L5: 105 of 108

ABSTRACT:

A purified thermostable enzyme is obtained that has unique characteristics. Preferably the enzyme is isolated from the *Thermus aquaticus* species and has a molecular weight of about 86,000-95,000 daltons. The thermostable enzyme may be native or recombinant and may be used in a temperature-cycling chain reaction wherein at least one **nucleic** acid sequence is amplified in quantity from an existing sequence with the aid of selected primers and nucleotide triphosphates. The enzyme is preferably stored in a buffer containing non-ionic detergents that lends stability to the enzyme.

106. 5,326,691, Jul. 5, 1994, Micro-libraries and methods of making and manipulating them methods for generating and analyzing micro-libraries; John Hozier, 435/6, 7.2, 30 [IMAGE AVAILABLE]

US PAT NO: 5,326,691 [IMAGE AVAILABLE]

L5: 106 of 108

ABSTRACT:

Micro-scale methods are applied in producing, maintaining, replicating, screening, manipulating and sub-cloning cell libraries. By means of the micro-scale methods of the invention, micro-libraries of single-cells or micro-colonies arranged in a definite two-dimensional pattern are produced, propagated, replicated, screened, examined and manipulated. It is feasible to sub-clone cells and micro-colonies from the micro-libraries, particularly those identified by screening and examining the micro-libraries, for the purposes of purification and large-scale cultivation. Automated and scaleable methods can be applied to screen practically any collection of cells attached to a surface. These methodologies are useful for making and screening on a micro-scale genomic libraries, cDNA libraries, and libraries of hybridoma cells, *inter alia*. Similar approaches employ such methods and micro-libraries for toxicological, pharmaceutical, mutagenetic and carcinogenic screening.

107. 5,079,352, Jan. 7, 1992, Purified thermostable enzyme; David H. Gelfand, et al., 536/23.2; 435/183, 320.1; 536/23.7 [IMAGE AVAILABLE]

US PAT NO: 5,079,352 [IMAGE AVAILABLE]

L5: 107 of 108

ABSTRACT:

Recombinant **DNA** vectors that encode a thermostable **DNA** polymerase

are useful in the recombinant production of thermostable **DNA** polymerase. The recombinant thermostable polymerase is preferred for use in the production of **DNA** in a polymerase chain reaction. Especially useful vectors encode the about 94,000 dalton thermostable **DNA** polymerase from *thermus aquaticus*.

108. 4,889,818, Dec. 26, 1989, Purified thermostable enzyme; David H. Gelfand, et al., 435/194, 183 [IMAGE AVAILABLE]

US PAT NO: 4,889,818 [IMAGE AVAILABLE]

L5: 108 of 108

ABSTRACT:

A purified thermostable enzyme is obtained that has unique characteristics. Preferably the enzyme is isolated from the *Thermus aquaticus* species and has a molecular weight of about 86,000-90,000 daltons. The thermostable enzyme may be native or recombinant and may be used in a temperature-cycling chain reaction wherein at least one **nucleic** acid sequence is amplified in quantity from an existing sequence with the aid of selected primers and nucleotide triphosphates. The enzyme is preferably stored in a buffer of non-ionic detergents that lends stability to the enzyme.

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L1 16692 S EXPRESSION AND (DNA OR RNA OR NUCLEIC)
L2 1392 S EXPRESSION(2W)LIBRAR?
L3 1368 S L1 AND L2
L4 67714 S ROBOT? OR COMPUTER(2A)CONTROL?
L5 108 S L3 AND L4
L6 10523 S EXPRESSION/CLM OR EXPRESSION/TI OR EXPRESSION/AB
L7 94 S L5 AND L6
L8 2360 S LIBRARY/CLM OR LIBRARY/TI OR LIBRARY/AB
L9 10 S L7 AND L8
L10 66288 S ROBOT?/CLM OR ROBOT?/AB OR ROBOT?/TI OR COMPUTER/TI OR C
OMP
L11 0 S L10 AND L7
L12 2 S L3 AND L10